WHAT IS CLAIMED IS:

1. An oxidizing cream oil-in-water emulsion for treating a keratin material, comprising:

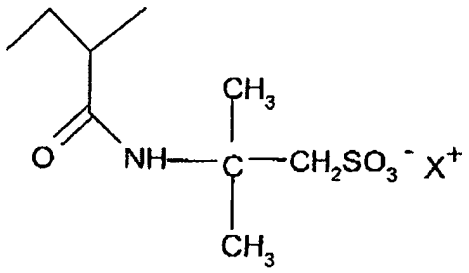
at least one oxidizing agent,

at least one fatty alcohol chosen from (C_8-C_{30}) fatty alcohols,

at least one surfactant chosen from nonionic and anionic surfactants and

at least one amphiphilic polymer comprising

- at least one 2-acrylamido-2-methylpropanesulphonic acid unit in free form or partially or totally neutralized form of formula (I) below and
- at least one hydrophobic unit comprising from 6 to 50 carbon atoms,



(I)

wherein X^+ is chosen from a proton, alkali metal cations, alkaline-earth metal cations and an ammonium ion.

2. The emulsion according to Claim 1, wherein the at least one hydrophobic unit of the at least one amphiphilic polymer comprises from 12 to 22 carbon atoms.

3. The emulsion according to Claim 1, wherein the at least one amphiphilic polymer has a number-average molecular weight ranging from 1 000 to 20 000 000 g/mol.

4. The emulsion according to Claim 3, wherein the at least one amphiphilic polymer has a number-average molecular weight ranging from 20 000 to 5 000 000 g/mol.

5. The emulsion according to Claim 4, wherein the at least one amphiphilic polymer has a number-average molecular weight ranging from 100 000 to 1 500 000 g/mol.

6. The emulsion according to Claim 1, wherein an aqueous 1% by weight solution of the at least one amphiphilic polymer has, at a temperature of 25°C, a viscosity measured using a Brookfield viscometer, No. 7 needle, ranging from 20 000 mPa.s to 100 000 mPa.s.

7. The emulsion according to Claim 1, wherein the at least one amphiphilic polymer is chosen from the amphiphilic polymers prepared by free-radical polymerization by precipitation in tert-butanol.

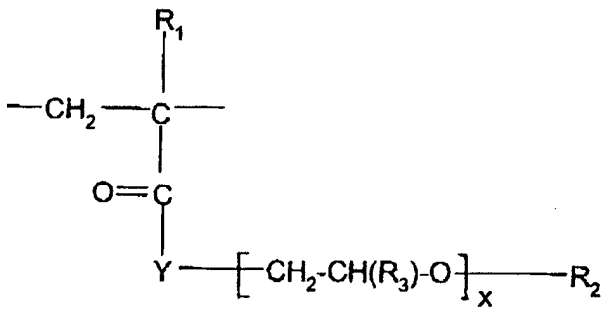
8. The emulsion according to Claim 1, wherein the at least one amphiphilic polymer is chosen from non-crosslinked amphiphilic polymers and crosslinked amphiphilic polymers, wherein said crosslinked amphiphilic polymers are crosslinked with at least one crosslinking agent.

9. The emulsion according to Claim 8, wherein the at least one amphiphilic polymer is chosen from the crosslinked amphiphilic polymers.

10. The emulsion according to Claim 8, wherein the at least one crosslinking agent is chosen from polyolefinically unsaturated compounds.

11. The emulsion according to Claim 10, wherein the at least one crosslinking agent is chosen from methylenebisacrylamide, allyl methacrylate and trimethylolpropane triacrylate (TMPTA).

12. The emulsion according to Claim 1, wherein the at least one hydrophobic unit is chosen from acrylates and acrylamides of formula (II) below:



(II)

wherein

R_1 and R_3, which may be identical or different, are each chosen from a hydrogen atom and linear and branched C_1-C_6 alkyl radicals;

Y is chosen from O and NH;

R_2 is a hydrophobic hydrocarbon-based radical chosen from those comprising from 6 to 50 carbon atoms;

x is a number of moles of alkylene oxide (oxyalkylene) and ranges from 0 to 100.

13. The emulsion according to Claim 12, wherein, in defining R_1 and R_3 in the formula (II), the linear and branched C_1-C_6 alkyl radicals are chosen from a methyl radical.

14. The emulsion according to Claim 12, wherein the hydrophobic hydrocarbon-based radical R_2 is chosen from those comprising from 12 to 22 carbon atoms.

15. The emulsion according to Claim 12, wherein the hydrophobic hydrocarbon-based radical R_2 is chosen from linear, branched and cyclic C_6-C_{18} alkyl radicals; C_6-C_{18} perfluoroalkyl radicals; cholesteryl radicals and cholesterol ester residues; and aromatic polycyclic groups.

16. The emulsion according to Claim 12, wherein the at least one hydrophobic unit chosen from acrylates and acrylamides of formula (II) comprises at least one oxyalkylene unit ($x \geq 1$).

17. The emulsion according to Claim 12, wherein the at least one hydrophobic unit chosen from acrylates and acrylamides of formula (II) comprises at least one polyoxyalkylenated chain.

18. The emulsion according to Claim 17, wherein the at least one polyoxyalkylenated chain comprises units chosen from ethylene oxide units and propylene oxide units.

19. The emulsion according to Claim 18, wherein the at least one polyoxyalkylenated chain consists of ethylene oxide units.

20. The emulsion according to Claim 12, wherein the number of oxyalkylene units ranges from 3 to 100.

21. The emulsion according to Claim 20, wherein the number of oxyalkylene units ranges from 3 to 50.

22. The emulsion according to Claim 21, wherein the number of oxyalkylene units ranges from 7 to 25.

23. The emulsion according to Claim 12, wherein the at least one amphiphilic polymer is chosen from:

- crosslinked and noncrosslinked, neutralized and non-neutralized copolymers comprising from 15% to 60% by weight of the at least one 2-acrylamido-2-methylpropane-sulphonic acid unit and from 40% to 85% by weight of the at least one hydrophobic unit chosen from (C_8-C_{16})alkyl(meth)acrylamide units and (C_8-C_{16})alkyl (meth)acrylate units, relative to the total weight of the at least one amphiphilic polymer; and

- terpolymers comprising from 10 mol% to 90 mol% of acrylamide units, from 0.1 mol% to 10 mol% of the at least one 2-acrylamido-2-methylpropanesulphonic acid unit and

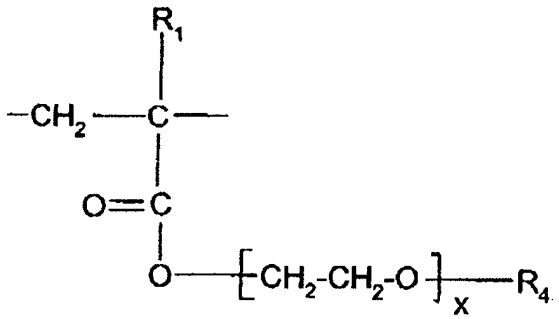
from 5 mol% to 80 mol% of n-(C_6-C_{18})alkylacrylamide units, relative to the total weight of the at least one amphiphilic polymer.

24. The emulsion according to Claim 12, wherein the at least one amphiphilic polymer comprising the at least one 2-acrylamido-2-methylpropanesulphonic acid unit in free form or partially or totally neutralized form of formula (I) and the at least one hydrophobic unit comprising from 6 to 50 carbon atoms is chosen from:

- non-crosslinked and crosslinked copolymers of the at least one 2-acrylamido-2-methylpropanesulphonic acid unit and of n-dodecyl methacrylate; and

- non-crosslinked and crosslinked copolymers of the at least one 2-acrylamido-2-methylpropanesulphonic acid unit and of n-dodecylmethacrylamide.

25. The emulsion according to Claim 12, wherein the at least one amphiphilic polymer is chosen from copolymers comprising the at least one 2-acrylamido-2-methylpropanesulphonic acid unit in free form or partially or totally neutralized form of formula (I) and at least one unit chosen from the units of formula (III) below:



(III)

wherein

x is an integer ranging from 3 to 100;

R_1 has the same meaning as that given in the formula (II); and

R_4 is chosen from linear and branched C_6-C_{22} alkyl radicals.

26. The emulsion according to Claim 25, wherein, in the formula (III), r is an integer ranging from 5 to 80.

27. The emulsion according to Claim 26, wherein, in formula (III), r is an integer ranging from 7 to 25.

28. The emulsion according to Claim 25, wherein, in formula (III), R_4 is chosen from linear and branched C_{10}-C_{22} alkyl radicals.

29. The emulsion according to Claim 25, wherein x = 25, R_1 is methyl and R_4 is chosen from linear and branched C_{16}-C_{18} and C_{22} alkyl radicals.

30. The emulsion according to Claim 12, wherein the molar percentage proportion of the units of the formula (II) in the at least one amphiphilic polymer ranges from 50.1% to 99.9%.

31. The emulsion according to Claim 25, wherein the molar percentage proportion of the units of the formula (III) in the at least one amphiphilic polymer ranges from 50.1% to 99.9%.

32. The emulsion according to Claim 12, wherein the molar percentage proportion of the units of the formula (II) in the at least one amphiphilic polymer ranges from 0.1% to 50%.

33. The emulsion according to Claim 25, wherein the molar percentage proportion of the units of the formula (III) in the at least one amphiphilic polymer ranges from 0.1% to 50%.

34. The emulsion according to Claim 1, wherein the at least one amphiphilic polymer is present in a concentration ranging from 0.01% to 10% by weight relative to the total weight of the emulsion.

35. The emulsion according to Claim 34, wherein the at least one amphiphilic polymer is present in a concentration ranging from 0.01% to 5% by weight relative to the total weight of the emulsion.

36. The emulsion according to Claim 35, wherein the at least one amphiphilic polymer is present in a concentration ranging from 0.01% to 2% by weight relative to the total weight of the emulsion.

37. The emulsion according to Claim 1, wherein the at least one oxidizing agent is chosen from hydrogen peroxide, urea peroxide, alkali metal bromates and ferricyanides, persalts, and redox enzymes where appropriate in the presence of the respective donor or co-factor thereof.

38. The emulsion according to Claim 37, wherein the redox enzymes are chosen from laccases, peroxidases and 2-electron oxidoreductases.

39. The emulsion according to Claim 37, wherein the at least one oxidizing agent is hydrogen peroxide.

40. The emulsion according to Claim 39, wherein the hydrogen peroxide is present in a concentration ranging from 0.15% to 12% by weight relative to the total weight of the emulsion.

41. The emulsion according to Claim 40, wherein the hydrogen peroxide is present in a concentration ranging from 0.6% to 9% by weight relative to the total weight of the emulsion.

42. The emulsion according to Claim 39, wherein the at least one oxidizing agent is an aqueous hydrogen peroxide solution.

43. The emulsion according to Claim 1, wherein the oxidizing agent is present in a concentration ranging from 0.1% to 25% by weight relative to the total weight of the emulsion.

44. The emulsion according to Claim 1, wherein the emulsion has a pH ranging from 1 to 6.

45. The emulsion according to Claim 44, wherein the emulsion has a pH ranging from 2 to 4.

46. The emulsion according to Claim 1, wherein the at least one fatty alcohol is chosen from C_{12}-C_{22} fatty alcohols.

47. The emulsion according to Claim 46, wherein the at least one fatty alcohol is cetyl alcohol.

48. The emulsion according to Claim 1, wherein the at least one fatty alcohol is present in a concentration ranging from 0.1% to 30% by weight relative to the total weight of the emulsion.

49. The emulsion according to Claim 48, wherein the at least one fatty alcohol is present in a concentration ranging from 0.5% to 15% by weight relative to the total weight of the emulsion

50. The emulsion according to Claim 1, wherein the anionic surfactants are chosen from alkyl sulphates, alkyl ether sulphates and α-olefin sulphonates.

51. The emulsion according to Claim 1, wherein the nonionic surfactants are chosen from glycerolated fatty alcohols.

52. The emulsion according to Claim 1, wherein the at least one surfactant is chosen from mixtures of nonionic and anionic surfactants.

53. The emulsion according to Claim 1, wherein the at least one surfactant is present in a concentration ranging from 0.1% to 30% by weight relative to the total weight of the emulsion.

54. The emulsion according to Claim 53, wherein the at least one surfactant is present in a concentration ranging from 0.5% to 15% by weight relative to the total weight of the emulsion.

55. The emulsion according to Claim 1, wherein the keratin material is human keratin fibers.

56. The emulsion according to Claim 55, wherein the human keratin fibers are hair.

57. The emulsion according to Claim 42, further comprising at least one hydrogen peroxide stabilizer.

58. The emulsion according to Claim 57, wherein the at least one hydrogen peroxide stabilizer is present in a concentration ranging from 0.0001% to 5% by weight relative to the total weight of the emulsion.

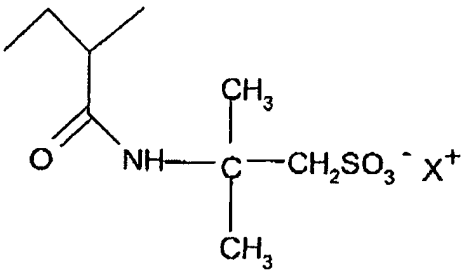
59. The emulsion according to Claim 1, further comprising at least one additive.

60. A process for oxidation dyeing of human keratin fibers, comprising applying to the keratin fibers

a dye composition comprising, in a support suitable for dyeing the keratin fibers, at least one oxidation dye; and

an oxidizing emulsion comprising at least one oxidizing agent, at least one fatty alcohol chosen from (C_8-C_{30}) fatty alcohols, at least one surfactant chosen from nonionic and anionic surfactants and at least one amphiphilic polymer comprising at least one 2-acrylamido-2-methylpropanesulphonic acid unit in free form or partially or totally neutralized

form of formula (I) below and at least one hydrophobic unit comprising from 6 to 50 carbon atoms,



(I)

wherein X^+ is chosen from a proton, alkali metal cations, alkaline-earth metal cations and an ammonium ion.

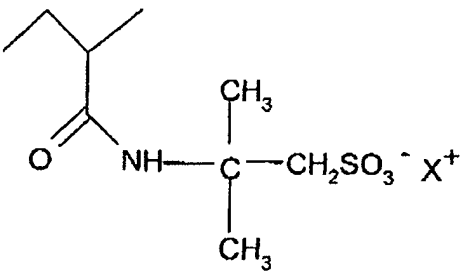
61. The process according to Claim 60, wherein the human keratin fibers are hair.

62. A process for oxidation dyeing of human keratin fibers, comprising

- mixing a dye composition, at the time of use, with an oxidizing emulsion, wherein

said dye composition comprises, in a support suitable for dyeing the keratin fibers, at least one oxidation dye; and

said oxidizing emulsion comprises at least one oxidizing agent, at least one fatty alcohol chosen from (C_8-C_{30}) fatty alcohols, at least one surfactant chosen from nonionic and anionic surfactants and at least one amphiphilic polymer comprising at least one 2-acrylamido-2-methylpropanesulphonic acid unit in free form or partially or totally neutralized form of formula (I) below and at least one hydrophobic unit comprising from 6 to 50 carbon atoms,



(I)

wherein X^+ is chosen from a proton, alkali metal cations, alkaline-earth metal cations and an ammonium ion

- applying the mixture obtained to the keratin fibres,

- leaving the mixture on the keratin fibers for a leave-in time ranging from 3 to 50 minutes; and

- optionally rinsing the keratin fibers,

- optionally washing the keratin fibers with shampoo,

- optionally rinsing said fibers again, and

- optionally drying the keratin fibers.

63. The process according to Claim 62, wherein the leave-in time ranges from 5 to 30 minutes.

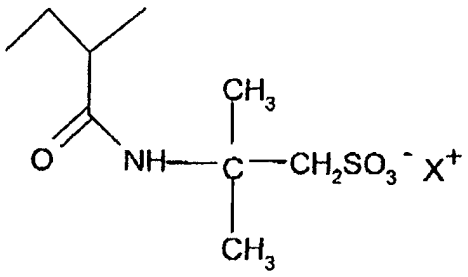
64. The process according to Claim 60, wherein the dye composition and the oxidizing emulsion are applied sequentially, with or without intermediate rinsing.

65. A process for treating human keratin fibers in order to permanently reshape the keratin fibers, comprising:

(i) applying to the keratin fibers a reducing composition, wherein the keratin fibers are placed under mechanical tension before, during or after said application,

(ii) optionally rinsing the keratin fibers,

(iii) applying to the optionally rinsed keratin fibers an oxidizing emulsion comprising at least one oxidizing agent, at least one fatty alcohol chosen from (C_8-C_{30}) fatty alcohols, at least one surfactant chosen from nonionic and anionic surfactants and at least one amphiphilic polymer comprising at least one 2-acrylamido-2-methylpropanesulphonic acid unit in free form or partially or totally neutralized form of formula (I) below and at least one hydrophobic unit comprising from 6 to 50 carbon atoms,



(I)

wherein X^+ is chosen from a proton, alkali metal cations, alkaline-earth metal cations and an ammonium ion, and

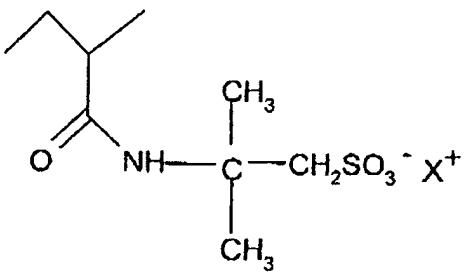
(iv) optionally rinsing again the keratin fibers.

66. The process according to Claim 65, wherein the human keratin fibers are hair.

67. The process according to Claim 66, wherein the keratin fibers are permanently reshaped in the form of permanent-waved hair.

68. A process for bleaching human keratin fibers, comprising:

(i) applying to the keratin fibers an oxidizing emulsion comprising at least one oxidizing agent, at least one fatty alcohol chosen from (C_8-C_{30}) fatty alcohols, at least one surfactant chosen from nonionic and anionic surfactants and at least one amphiphilic polymer comprising at least one 2-acrylamido-2-methylpropanesulphonic acid unit in free form or partially or totally neutralized form of formula (I) below and at least one hydrophobic unit comprising from 6 to 50 carbon atoms,



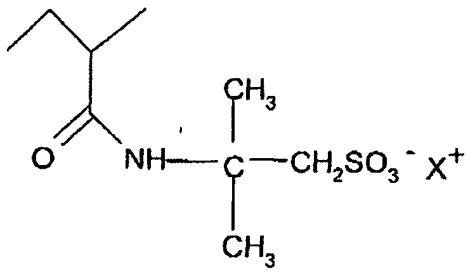
(I)

wherein X^+ is chosen from a proton, alkali metal cations, alkaline-earth metal cations and an ammonium ion, and

(ii) rinsing the keratin fibers thus treated.

69. The process according to Claim 68, wherein the human keratin fibers are hair.

70. A method for stabilizing the viscosity of an oxidizing oil-in-water emulsion, comprising including in the emulsion at least one amphiphilic polymer comprising at least one 2-acrylamido-2-methylpropanesulphonic acid unit in free form or partially or totally neutralized form of formula (I) below and at least one hydrophobic unit comprising from 6 to 50 carbon atoms,



(I)

wherein X^+ is chosen from a proton, alkali metal cations, alkaline-earth metal cations and an ammonium ion,

wherein the emulsion comprises at least one fatty alcohol and at least one surfactant chosen from nonionic and anionic surfactants.

71. The method according to Claim 70, wherein the at least one fatty alcohol is chosen from (C_8-C_{30}) fatty alcohols.